

## REMARKS

*In view of the Office Action mailed 03/12/2004, the Applicants have recognized that the preliminary amendment filed on 02/11/2002 was prepared using a version of the patent application different than that originally filed. Accordingly, two originally filed claims were omitted. Originally filed claims 16 and 23 were omitted. In view of this error, which occurred without deceptive intent by the Applicants, the omitted claims have been included in this response. Their inclusion has resulted alteration of the claim numbering referred to by the Office in the subject Office action. Accordingly, (I) each claim number referred to by the Office, from claim 16 forward in the subject Office Action, corresponds to a claim number in this response incrementally higher by 1 (e.g., claim 16 referred to by the Office in the subject Office Action corresponds to claim 17 in this response) and (II) originally filed claim 17 has not been examined on its merits.*

*All of the claim numbering in this response refers to proper claim numbering based on the originally filed claims. To this end, the claim numbering referred to by the Office in making its objections and rejections have been altered to reflect the claim numbering corresponding to the originally filed claims.*

The Application has been carefully reviewed in light of the Office Action mailed March 12, 2004. At the time of this Office Action, Claims 1-23 were pending in the Application, of which Claims 1-7, 9-13, 17-21 and 23 were rejected and Claims 8, 14, 15,

and 22 were withdrawn from consideration. In order to advance prosecution of this case, Claims 8, 14-21 and 23 have been amended to overcome the rejections asserted by the Office and claim 22 has been cancelled. Furthermore, new claim 24 has been added. It is believed that the amended and new claims do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested. The Applicants respectfully request reconsideration and favorable action in this case.

The following actions were taken or matters raised: (I) The Office conveyed that various cited portions of the preliminary amendment filed on February 11, 2002 were not entered for cited reasons; (II) The Office conveyed that various references recited in the IDS filed on February 11, 2002 do not constitute prior art and should not have been included in the IDS; (III) Claims 8, 14, 15, 21 and 22 were objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim; (IV) Claims 16-20 and 23 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention; (V) Claims 1-3, 7/1-7/3, 9-11 and 12/9-12/11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson (United States Patent No. 5,149,268) in view of Wilson et al. (United States Patent No. 5,611,793); and (VI) Claims 1, 4-6, 7/1, 7/4-7/6, 9, 10, 12/9, 12/10 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Vari

(European Patent No. EP 0830852 A1) in view of Wilson et al. (United States Patent No. 5,611,793).

**Correction To Claim Presentation Arising From Error In Preliminary Amendment  
Filed 2/11/2002**

**Un-Entered Portion of Preliminary Amendment Filed on 02/11/2002**

In response to the Office having conveyed that various cited portions of the preliminary amendment filed on February 11, 2002 were not entered for cited reasons, the Applicants have included herein proper amends to such portions of the originally filed application.

**Improper IDS References Cited**

In response to the Office having conveyed that various references recited in the IDS filed on February 11, 2002 do not constitute prior art and should not have been included in the IDS, the Applicants have submitted herewith a substitute IDS that addresses the issues raised by the Office.

**Claims Objected To Under 37 CFR 1.75(c)**

Claims 8, 14, 15 and 22 were objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. To overcome this objection, Claims 8, 14 and 15 have been amended to recite single claim dependency. Originally filed claim 22 (i.e., claim 21 in the preliminary amendment) has been cancelled.

#### **Claims Rejected Under 35 U.S.C. 112**

The Office has rejected claims 17-21 and 23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. To overcome this rejection, (I) claims 17-21 have been amended to recite a process and (II) claim 23 has been amended to be dependent upon only claim 17.

#### **Claims Rejections under 35 U.S.C. 103(a)**

The Office has rejected Claims 1-3, 7/1-7/3, 9-11 and 12/9-12/11 under 35 U.S.C. § 103(a) as being unpatentable over Johnson (United States Patent No. 5,149,268) in view of Wilson et al. (United States Patent No. 5,611,793). The Office asserts that it would have been obvious for one skilled in the art to combine portions of the disclosures made by Johnson with portions of the disclosures made by Wilson to arrive at the recitations of Claims 1-3, 7/1-7/3, 9-11 and 12/9-12/11.

Additionally, the Office has rejected Claims 1, 4-6, 7/1, 7/4-7/6, 9, 10, 12/9, 12/10 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Vari (European Patent No. EP 0830852 A1) in view of Wilson et al. (United States Patent No. 5,611,793). The Office asserts that it would have been obvious for one skilled in the art to combine portions of the disclosures made by Vari with portions of the disclosures made by Wilson to arrive at the recitations of Claims 1, 4-6, 7/1, 7/4-7/6, 9, 10, 12/9, 12/10 and 13.

The Applicants respectfully disagree with the assessment of the Office that the device of the Wilson reference would be obvious for application in root canal treatments. One reason for non-obviousness of such an application is that the Assignee of the Wilson reference is the Institute of Dental Surgery of the Eastman Dental Hospital. Had it been felt that the disclosures made in the Wilson reference were applicable to endodontic (i.e., root canal) work, one would have expected that at least one of the people skilled in the art that were associated with the Institute of Dental Surgery of the Eastman Dental Hospital would have suggested it either at the time of filing of the patent application of the Wilson reference or since then. One of the Applicants in the Wilson reference is also one of the Applicants in the present application. Even after having contributed to the disclosures in the Wilson reference, this common Applicant did not appreciate the suitability and applicability of the present claimed invention for endodontic work.

In dentistry, it is not the case that periodontal treatments or treatments of carious

lesions are readily and unambiguously applicable in other areas (e.g., endodontic work). As the Office states, the issue at hand is what would be considered obvious to a person skilled in the art. In view of the facts presented herein, the person skilled in the art had not appreciated that the process disclosed in the Wilson reference could be used for dental root canal work. Furthermore, none of the prior art cited by the ISR describes cross use of products or methods between endodontic and periodontic or carious treatments. Accordingly, it is submitted by the Applicants that the skilled person would not combine the disclosures of the Johnson reference or Vari reference with the Wilson reference.

Additionally, with regard to the apparatus and process of claims 9-24, the Applicants submit that none of the cited prior art discloses an optical fibre having a portion at or close to the distal end that is shaped to spread radiation around and along the dental root canal.

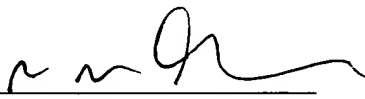
In view of the remarks present above, the Applicants submit that Claims 1, 9, 16 and, hence any claims dependent thereon, recite novel physical features that provide new and advantageous results in view of Wilson, Johnson and Vari, making such claims novel and non-obvious and, thus, patentable over such cited references. Accordingly, the Applicants submit that the rejections under 35 U.S.C. § 103(a) applied to Claims 1-7 and 9-13 are overcome and respectfully requests the Office to withdraw the rejection of Claims 1-7 and 9-13 under 35 U.S.C. § 103(a) as being unpatentable over Wilson, Johnson and/or

Vari.

### CONCLUSIONS

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Application, the Applicants invite the Examiner to contact the undersigned at 512-372-8240 at the Examiner's convenience.

Respectfully Submitted,  
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